

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Previously Presented) A process for manufacturing a catalyst which comprises a cobalt species on a titania support, comprising mixing together said titania support and an aqueous solution of cobalt ammine carbonate at a pH in the range 7.5 to 12, and heating to a temperature in the range 60 to 110°C to effect decomposition of the cobalt ammine carbonate and precipitation of an insoluble cobalt compound onto said titania support.
2. (Previously Presented) A process according to claim 1, comprising saturating a titania support with an aqueous solution of cobalt ammine carbonate, and removing the excess of the solution, before heating the resulting product to a temperature sufficient to effect decomposition of the cobalt ammine carbonate.
3. (Previously Presented) A process according to claim 1, wherein the mixture of titania support and said cobalt solution is heated to a temperature sufficient to effect decomposition of the cobalt ammine carbonate in situ before separating the solid catalyst from the mixture and drying.
4. (Previously Presented) A process according to claim 1, wherein the titania support and cobalt solution are maintained at an elevated temperature for a period of at least 60 minutes.
5. (Previously Presented) A process according to claim 1, further comprising the step of calcining the resulting catalyst product at a temperature between 200 and 600°C.
6. (Previously Presented) A process according to claim 1 further comprising the step of reducing the resulting catalyst product with hydrogen at a temperature between 300 to 550°C.
7. (Previously Presented) A process according to in claim 6, further comprising the step of dispersing the reduced catalyst product in particulate form in a carrier matrix.
8. (Previously Presented) A process according to claim 1, wherein the pH of the mixture of titania particles and aqueous cobalt ammine carbonate complex is maintained above 7.5 during the heating step.

9. (Currently Amended) A catalyst or catalyst precursor comprising a cobalt species on a titania support, made by mixing together said titania support and an aqueous solution of cobalt ammine carbonate at a pH in the range 7.5 to 12, and heating said mixed together titania support and aqueous solution of cobalt ammine carbonate to a temperature in the range 60 to 110°C to effect decomposition of the cobalt ammine carbonate and precipitation of an insoluble cobalt compound onto said titania support.
10. (Previously Presented) A process for the hydrogenation of an organic compound comprising an olefinic, carbonyl, nitrile, nitro or aromatic group, comprising reacting said compound with hydrogen in the presence of a catalyst according to claim 9.
11. (Previously Presented) A process for the formation of a hydrocarbon by the reaction of carbon monoxide with hydrogen in the presence of a catalyst according to claim 9.
12. (Currently Amended) A process according to claim 10 further comprising the step of forming an active catalyst in situ by reducing a catalyst precursor with hydrogen before conducting said hydrogenation reaction, wherein the catalyst precursor comprises a cobalt species on a titania support, made by mixing together said titania support and an aqueous solution of cobalt ammine carbonate at a pH in the range 7.5 to 12, and heating said mixed together titania support and aqueous solution of cobalt ammine carbonate to a temperature in the range 60 to 110°C to effect decomposition of the cobalt ammine carbonate and precipitation of an insoluble cobalt compound onto said titania support.
13. (Previously Presented) A process for the oxidation of an organic compound by reaction with an oxygen-containing compound in the presence of a catalyst as claimed in claim 9.
14. (Currently Amended) A process according to claim 11 further comprising the step of forming an active catalyst in situ by reducing a catalyst precursor with hydrogen before conducting said hydrogenation reaction, wherein the catalyst precursor comprises a cobalt species on a titania support, made by mixing together said titania support and an aqueous solution of cobalt ammine carbonate at a pH in the range 7.5 to 12, and heating said mixed together titania support and aqueous solution of cobalt ammine carbonate to a temperature in the range 60 to 110°C to effect decomposition of the cobalt ammine carbonate and precipitation of an insoluble cobalt compound onto said titania support.

15. (Previously Presented) A catalyst or catalyst precursor according to claim 9 having a cobalt metal surface area in the range from 20 to 40 m² per gram total cobalt.